

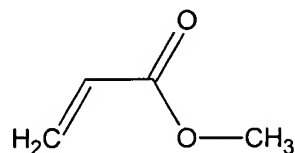
REMARKS

Applicants request reconsideration of this application in view of the present Amendment.

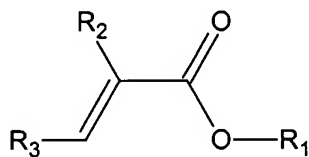
Claims 1-13, 18, 20-24 and 30-31 are pending. Claims 14-17 and 19 are cancelled.
Claim 31 is new. Claims 1, 18, 20, 21 and 30 are amended to more clearly define the invention.

I. 35 U.S.C. § 112

As is well known in the polymer arts, polymers made from acrylates are members of the family of polymers based upon polyethylene which all contain a vinyl group (*e.g.*, $R_2C=CR-$, where R can be H or some other molecule). Acrylates are based upon acrylic acid and an alkoxylated acrylate is an acrylate that is bonded to an alkyl group through its ester oxygen. The alkoxylated molecule methyl acrylate is shown here:

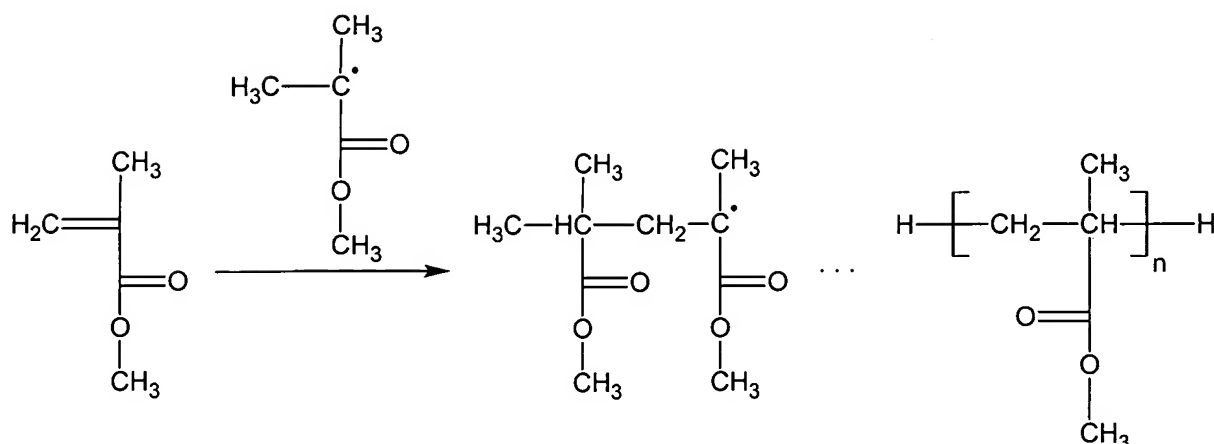


Additional alkyl or other groups can also be added to an alkoxylated acrylate molecule at the C2 or C3 carbons of the acrylate. A trifunctional alkoxylated acrylate could be drawn as follows:



where R₁, R₂ and R₃ are the functional groups. As can be readily seen, this trifunctional molecule is very different from the "tri-functional" molecule disclosed in Qian.

Regardless of the level of functionality of alkoxylated acrylates, polymerization can occur. Specifically, polymerization can take place, for example, by free-radical polymerization to provide the following polymer (using methyl (2-methyl)acrylate as an example):



As can be seen, the polymer backbone is formed along the double bond of the acrylate which is present regardless of the presence or absence of functional groups.

Because (1) the polymerization of acrylate based molecules is independent of any functional groups that might be present, thereby enabling the formation of an adhesive and (2) the specification of the present application states that "Suitable alkoxylate acrylates for use in the adhesive include alkoxylated acrylates, derivatives of alkoxylated acrylates, and mixtures thereof," the recited alkoxylated acrylate as defined by the specification would yield an adhesive as claimed. As the specification is fully enabling of the claims, Applicants request that the rejection under 35 U.S.C. § 112, ¶ 1 be withdrawn.

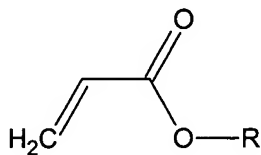
II. 35 U.S.C. § 102(e)

Claim 1 recites a reversible adhesive composition including an alkoxylated acrylate that is curable by exposure to actinic light and when cured can lose its adhesive properties when exposed to ultrasonic waves/vibrations. The trifunctional molecule of Qian is not an alkoxylated acrylate. Further, Qian does not disclose, inherently or otherwise, a composition that when cured can lose its adhesive properties when exposed to ultrasonic waves/vibrations.

A. **The tri-functional monomer of Qian is not an alkoxylated acrylate as claimed.**

The Office Action suggests that the tri-functional monomer of Qian is "the instant alkoxylated trifunctional acrylate." The focus of this statement on alkoxylated trifunctional

acrylates rather than alkoxylated acrylates as claimed is based upon the rejection under 35 U.S.C. § 112, ¶ 2 limiting the scope of the claims. However, as discussed above, the alkoxylated acrylate of claim 1 is not limited to alkoxylated trifunctional acrylates. In addition to the claims not being so limited, the claimed alkoxylated acrylates are not equivalent to the tri-functional monomer of Qian. The term "alkoxylated acrylate" refers to an acrylate wherein an alkyl group is attached to the acrylate molecule via the ester oxygen of the acrylate. For example, the alkoxylated acrylate can be drawn as follows:



where R is an alkyl group. The tri-functional monomer of Qian is not an alkoxylated acrylate for at least several reasons. First, the backbone of the tri-functional monomer of Qian is not an acrylate. Second, even if, for example, one of the R groups were an acrylate and this R group was called the backbone, the remainder of the molecule (including the backbone and the other two R groups) does not constitute an alkyl group. An alkyl group is a group of carbon and hydrogen atoms formed from an alkane. Thus, an alkyl group does not include any double bonds or alkylene oxide groups like those present in the backbone and R groups of the tri-functional monomer of Qian. The tri-functional monomer of Qian is not an alkoxylated acrylate.

B. Qian does not inherently disclose a reversible adhesive.

The Office Action also states that "[t]he adhesive of Qian would lose its adhesive properties inherently when exposed to ultrasonic [sic] waves/vibrations."

"To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics

necessarily flows from the teachings of the prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (B.P.A.I. 1990) (emphasis in original).

As discussed above, Qian's tri-functional monomer is not an alkoxylated acrylate as presently claimed. Because Qian's tri-functional monomer is not an alkoxylated acrylate there is no way to provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of Qian.

C. Conclusion

Independent claims 1 and 21 each recite an alkoxylated acrylate and that the reversible adhesive composition when cured can lose its adhesive properties when exposed to ultrasonic waves/vibrations. Because (1) the tri-functional monomer of Qian is not an alkoxylated acrylate and (2) there is no way to provide a basis in fact and/or technical reasoning that Qian inherently discloses an adhesive that loses its adhesive properties upon exposure to ultrasonic waves/vibrations, Applicants request that the rejection of claims 1 and 21 under 35 U.S.C. § 102(e) be withdrawn.

Claims 6-8, 18, 20 and 22-24 depend from claims 1 and 21 and recite additional features that further distinguish the claims for Qian under 35 U.S.C. § 103(a). The Applicants request that the rejection of these claims under 35 U.S.C. § 102(e) also be withdrawn.

III. 35 U.S.C. § 103(a)

A. Qian

To establish a prima facie case of obviousness, the reference (1) must teach or suggest all the claim limitations and (2) must contain some suggestion or motivation to modify the reference as suggested. *See* MPEP § 2143 (Eighth Edition, incorporating Rev. 2, May 2004).

As discussed above, the tri-functional monomer taught by Qian is not an alkoxylated acrylate as presently claimed. Further, Qian does not teach or suggest a composition that when cured can lose its adhesive properties when exposed to ultrasonic waves/vibrations. Neither does Qian provide any suggestion or motivation to modify Qian to provide a composition that when cured can lose its adhesive properties when exposed to ultrasonic waves/vibrations.

Because Qian does not teach or suggest all the claim limitations or contain any suggestions or motivation to modify Qian to provide a composition that when cured can lose its adhesive properties when exposed to ultrasonic waves/vibrations, Applicants request that the rejection of independent claims 1 and 21 under 35 U.S.C. § 103(a) be withdrawn.

Claims 6-8, 18, 20 and 22-24 depend from claims 1 and 21 and recite elements that further distinguish the claims from the disclosure of Qian under 35 U.S.C. § 103(a). The Applicants request that the rejection of these dependent claims under 35 U.S.C. § 103(a) be withdrawn as well.

B. Qian in view of Smetana et al.

As just discussed for the rejection under 35 U.S.C. § 103(a) for Qian alone, the tri-functional monomer of Qian is not equivalent to the alkoxylated acrylate presently claimed and Qian does not teach a composition that when cured can lose its adhesive properties when exposed to ultrasonic waves/vibrations. Further, Qian does not provide any suggestion or motivation to modify Qian to provide a composition that when cured can lose its adhesive properties when exposed to ultrasonic waves/vibrations. The disclosure of photoinitiators and ratios of components by Smetana et al. does not solve these deficiencies of Qian.

Because the combination of Qian with Smetana et al. does not teach or suggest all the claim limitations or provide any suggestion or motivation to modify Qian to provide a composition that when cured can lose its adhesive properties when exposed to ultrasonic waves/vibrations, Applicants request that the rejection of independent claims 1 and 21 under 35 U.S.C. § 103(a) be withdrawn.

Claims 2-8, 12, 18, 20 and 22-24 depend from claims 1 and 21 and recite elements that further distinguish the claims from the disclosure of Qian in view of Smetana et al. under 35 U.S.C. § 103(a). The Applicants request that the rejection of these dependent claims under 35 U.S.C. § 103(a) be withdrawn as well.

IV. Conclusion

For the reasons discussed above, Applicants respectfully submit that the application is in condition for allowance and allowance is requested.

Respectfully submitted,



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